*REMARKS*

Reconsideration of the pending application is respectfully requested in view of the foregoing amendments and the following remarks.

*Status of the Application*

Claims 1-5, 7-9, 11-13, 15, 16, 18, 19 and 21 are currently pending, with claims 1, 11 and 15 being amended and claims 17, 20, 22 and 23 being canceled (the substance thereof being introduced into claims 1 and 11). As all of the amendments are fully supported by the application as originally filed, no new matter has been introduced into the application by way of these amendments.

*Summary of the Final Office Action*

The final Office Action dated July 14, 2006, rejects claims 1-9 and 11-23 under 35 U.S.C. § 103(a) as obvious over U.S. Patent 6,593,057 to Kita et al. ("Kita") in view of U.S. Patent 6,821,704 to Ide et al. ("Ide") or U.S. Patent 6,457,413 to Loccufier et al. ("Locuffier"). In entering the rejection, the Office Action recites:

> Given the teachings of the references, it would have been obvious to one of ordinary skill in the art to prepare the material of Kita et al choosing to prepare the material having larger particles given the teachings of Ide et al and Loccufier et al, with reasonable expectation of achieving a material having improved impression capacity.

*See Office Action, p. 3.* In addressing the Applicants' prior arguments, the Office Action states:

> The instant claims simply require that the resin coating comprise components a-d, and the teachings of Kita in light of Ide and Loccufier (both secondary references teach that the particles are added to improve the mechanical strength on the resin layer/heat sensitive layer). Regardless of whether there is an overcoat or whether the particles are larger in diameter than the thickness of the layer, the claims simply require that particles of that composition and size are present, thus the rejection is maintained.

*See Office Action, p. 4.*

*Discussion*

Applicants traverse the obviousness rejection for the following reasons.

As currently constituted, claim 1 provides a positive working heat-sensitive lithographic printing plate precursor comprising a support having a hydrophilic surface and a

coating provided on the hydrophilic surface, said coating comprising: (a) an infrared light absorbing agent, (b) an oleophilic resin soluble in an aqueous alkaline developer, (c) a developer resistance means; and (d) spacer particles, wherein said spacer particles comprise aluminum hydroxide or aluminum oxide and have an average particle size larger than 0.4 μm, wherein the coating has a surface and the average particle size is selected so that a portion of a plurality of the spacer particles extend beyond the surface of the coating, and wherein the amount of said particles in the coating is between 5 and 200 mg/m$^2$. Claim 11 describes a related process.

The claims as amended require, among others, the limitations previously presented in separate dependent claims, i.e., wherein the coating has a surface and the average particle size is selected so that a portion of a plurality of the spacer particles extend beyond the surface of the coating, and wherein the amount of said particles in the coating is between 5 and 200 mg/m$^2$. (No further search is therefore required.) In contrast, Kita fails to disclose or teach the invention as claimed, the latter which includes these limitations. The particles in Kita are provided to increase the strength of the material, and are thus disclosed and taught to have an average particle diameter which does not exceed the thickness of the coating into which the particles reside. Specifically, Kita discloses and teaches an ink-receptive layer (which may optionally contain 10-100 nm particles) has a thickness of at least 0.1 μm, and a water-receptive layer comprising colloidal particles (5-100 nm or 100 X 100 nm) having a thickness of at least 0.1 to 3 μm. A water-soluble overcoat layer having a thickness of 0.05 to 4 μm is also disclosed. Further, Kita discloses and teaches the inclusion of relatively high amounts of particles in the layers—in Examples 1, 4 and 5 of Kita, there is used 900 mg/m$^2$ of particles.

Based on the foregoing, in no way does Kita disclose or teach the use of spacer particles comprising aluminum hydroxide or aluminum oxide and having an average particle size larger than 0.4 μm, wherein the coating has a surface and the average particle size is selected so that a portion of a plurality of the spacer particles extend beyond the surface of the coating, and wherein the amount of said particles in the coating is between 5 and 200 mg/m$^2$.

As the Office Action agrees, Kita does not disclose or teach the claimed subject matter. This being said, neither secondary reference provides a teaching that would motivate one skilled in the art to modify the Kita material in a manner that would provide the claimed invention.

At the outset, there is no motivation to combine the references. The teaching present in Kita fails to provide any correlation of an increase in particle size with improved performance. Indeed, when Kita discusses the improvements in adhesion and compression capacity, it does so in connection with the *amount* of fine powder added to the ink-receptive layer—not the *size* of the fine powder particles. *See Kita, col. 3, lines 29-37.* Thus, the Office Action's basis for the alleged combination fails—there is simply no basis in Kita itself for substituting particles having a significant increase in size into the ink-receptive layer. Moreover, durability cannot be used as a basis for using increased particles size because the Kita layer is covered with a protective overcoat. Thus, there is no basis for simply substituting relatively larger particles into the Kita compositions and processes for their preparation. The obviousness rejection should therefore fail on this basis alone.

By way of further support, Applicants note that Ide, like Kita, teaches one skilled in the art that its particles should not protrude from the surface of the coating. Instead, as taught in FIG. 1 of Ide, all of the particles (regardless of size) and fully encapsulated within a layer. Thus, like Kita, one skilled in the art would understand that relatively smaller particles are to be used with relatively thinner water-receptive layers (so they do not protrude), and relatively larger particles are to be used with relatively thicker water-receptive layers.

This relationship is emphasized again at col. 22 of Ide, wherein the thickness of the layer was 2.5 μm and the aluminum oxide particles dispersed therein were 90 nm of less in diameter. "In other words, aluminum oxide particles were dispersed in the heat sensitive layer in the fine particle state." *See Ide, col. 22, lines 50-55; see, e.g., also "Preparation of Plate Material (No. 4)(13-15 nm particles in a 2.3 μm layer). "Preparation of Plate Material (No. 5)(50 nm or less particles in a 2.8 μm layer).* The teaching of Ide, then is the same as that provided in Kita. Ide, like Kita, simply does not provide the teaching absent in the prior art, e.g., the use of spacer particles comprising aluminum hydroxide or aluminum oxide and having an average particle size larger than 0.4 μm, wherein the coating has a surface and the average particle size is selected so that a portion of a plurality of the spacer particles extend beyond the surface of the coating, and wherein the amount of said particles in the coating is between 5 and 200 $mg/m^2$.

The teaching of Loccufier, assuming it may be combined with Kita (although it is properly not combinable for the reasons set forth above) also fails to motivate one skilled in the art to provide the claimed invention. There is nothing in Loccufier that would motivate

one skilled in the art to use any particular amount of particles, let alone the amount required by the claims. This leaves the particle loading teaching to Kita. As indicated before, however, Kita would motivate one skilled in the art to use 900 mg/m$^2$ of particles. Thus, to the extent one assumes that these references are combinable, the result would be a layer containing 900 mg/m$^2$ of Loccufier particles in the Kita composition. This, of course, would far exceed the particulate loading level required by the pending claims.

For all of the foregoing reasons, Applicants submit that the asserted combination is improper, and that even if one assumes the combination is proper, the claimed invention is not provided thereby absent hindsight.

*Conclusion*

As applicant believes the application is in proper condition for allowance, the examiner is respectfully requested to pass the application to issue. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

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